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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Hardy Lee Crumby

Attorney Docket No.: IGT1P040/P-363

Patent: 6,875,110

Issued: April 5, 2005

Title: MULTI-SYSTEM GAMING TERMINAL
COMMUNICATION DEVICE

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as first-class mail on May 3, 2005 in an envelope addressed to the Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.

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Tomika D. Thomas

**REQUEST FOR CERTIFICATE OF CORRECTION
OF OFFICE MISTAKE
(35 U.S.C. §254, 37 CFR §1.322)**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
Attn: Certificate of Correction

**Certificate
MAY 13 2005
of Correction**

Dear Sir:

Attached is Form PTO-1050 (Certificate of Correction) at least one copy of which is suitable for printing. The errors together with the exact page and line number where the errors are shown correctly in the application file are as follows:

CLAIMS:

1. In line 27 of claim 1 (column 18, line 4) after "master" add "--gaming--". This appears correctly in Amendment E filed August 5, 2004, page 4, line 36.

2. In line 58 of claim 1 (column 18, line 34) change "des tion" to "--destination--". This appears correctly in the Amendment E, filed on August 5, 2004, page 5, line 20.

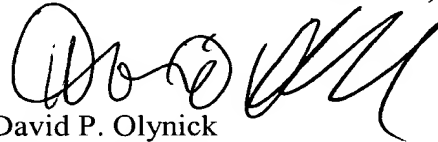
MAY 18 2005

4. In line 8 of claim 2 (column 18, line 47) change "ice" to --service--. This appears correctly in Amendment E, filed August 5, 2004, page 5, line 28.

3. In line 3 of claim 15 (column 20, line 12) after "information" add --formatted--. This appears correctly in Amendment E, as filed August 5, 2004, page 9, line 7.

It is noted that the above-identified errors were printing errors that apparently occurred during the printing process. Accordingly, it is believed that no fees are due in connection with the filing of this Request for Certificate of Correction. However, if it is determined that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 500388 (Order No. IGT1P040)

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP

A handwritten signature in black ink, appearing to read "D. Olynick", written over the printed name.

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 6,875,110

DATED : April 5, 2005

INVENTOR(S) : Hardy Lee Crumby

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Claims

In line 27 of claim 1 (column 18, line 4) after "master" add --gaming--

In line 58 of claim 1 (column 18, line 34) change "des tion" to --destination--

In line 8 of claim 2 (column 18, line 47) change "ice" to --service--

In line 3 of claim 15 (column 20, line 12) after "information" add --formatted--

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Crumby

Attorney Docket No.: IGT1P040/P-363

Application No.: 09/690,925

Examiner: M. O'Neill

Filed: October 17, 2000

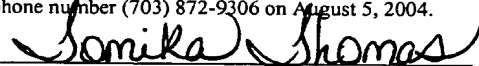
Group: 3713

Title: MULTI-SYSTEM GAMING TERMINAL
COMMUNICATION DEVICE

CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being transmitted via facsimile to the U.S. Patent and Trademark Office, Attention: Examiner M. O'Neill at facsimile telephone number (703) 872-9306 on August 5, 2004.

Signed:


Tomika Thomas

AMENDMENT E

Mail Stop Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Office Action dated May 5, 2004 and the in-person interview of July 27, 2004:

Amendments to the Claims are reflected in the listing of claims, which begins on page 2 of this paper.

Remarks/Arguments begin on page 9 of this paper.

5. (Withdrawn) The gaming machine of claim 3, further comprising:
an antenna for transmitting and receiving communications over the wireless radio connection.

6. (Withdrawn) The gaming machine of claim 1, wherein the native communication protocol is selected from the group consisting of a progressive game service protocol, a bonus game service protocol, a player tracking service protocol, a cashless ticketing service protocol, a game downloading service protocol, a prize service protocol, an entertainment content service protocol, a concierge service protocol, a lottery service protocol and a money transfer service protocol.

7. (Withdrawn) The gaming machine of claim 1, wherein the plurality of communication ports comprises a first communication port using a first native communication protocol a second communication port using a second native communication protocol.

8. (Withdrawn) The gaming machine of claim 1, wherein the plurality of communication ports comprises a first communication port that receives and sends messages from a first game service server and a second communication port that receives and send messages from a second game service server.

9. (Withdrawn) The gaming machine of claim 1, wherein communication between the gaming machine and the one or more game servers is encrypted.

10. (Withdrawn) The gaming machine of claim 1, wherein the processor logic is capable of configuring each of the plurality of communication ports to emulate a native communication protocol.

11. (Withdrawn) The gaming machine of claim 10, wherein the communication multiplexer communication device is capable of communicating with a boot server to determine the native communication protocol to be used on each of the plurality of communication ports.

12. (Withdrawn) The gaming machine of claim 1, wherein the one or more game service servers are selected from the group consisting of a prize server, a game server, an entertainment content server, a cashless ticketing server, progressive game server, a bonus game server, a concierge service server, a lottery server and a money transfer server.

13. (Withdrawn) The gaming machine of claim 1, wherein the game played on the gaming machine is at least one of a video slot game, a mechanical slot game, a lottery game, a video poker game, a video black jack game, and a video pachinko game.

14. (Withdrawn) The gaming machine of claim 1, wherein the second communication protocol is a TCP/IP communication protocol.

15. (Withdrawn) The gaming machine of claim 1, wherein the gaming machine employs regulated gaming software that provides messages in the native communication protocol and wherein the regulated gaming software is not modified to accept messages transmitted in the second communication protocol.

16. (Withdrawn) The gaming machine of claim 1, wherein a physical interface of the one or more communication ports is selected from the group consisting of RS-422/485, Fiber Optic, RS-232, DCS Current Loop, Link Progressive Current Loop, IEEE (Institute of Electronic and Electrical Engineers) 1394-compatible, Ethernet and USB (Universal Serial BUS)-compatible.

17. (Currently Amended) A multiplexer communication device for multiplexing communications between a master gaming controller on a gaming machine and one or more game service servers, the multiplexer communication device comprising:

a plurality of communication ports connected to a multi-port communication board wherein each communication port transmits and receives messages between the gaming machine and the multiplexer communication device in an application specific protocol wherein the application specific protocol is programmed in regulated gaming software that is executed by the master gaming controller for allowing the master gaming controller to receive and to send messages in the application specific protocol and wherein each communication port is configured to accept a physical communication connection compatible with the application specific protocol and wherein each communication port is configurable to utilize a physical communication protocol that allows messages in the application specific protocol to be parsed by the communication multiplexer device;

~~an~~ only one output communication port that transmits messages addressed to one or more game service servers and receives messages from one or more game service servers addressed to one of the plurality of communication ports using a second communication protocol;

a logic device that does not communicate with the master gaming controller on the gaming machine, said logic device adapted for:

i) determining a destination device for each message received at one of the plurality of communication ports wherein each message is formatted using a particular application specific protocol, formatting each message in the particular application specific protocol into the second communication protocol and transmitting a message formatted in the second communication protocol via the output communication port to the destination device wherein the message formatted in the second communication protocol includes information originally formatted in the particular application specific protocol;

ii) determining a destination port from among the plurality of communication ports for each message received at the output communication port wherein each message received at the output communication port is formatted using the second communication protocol, formatting the message received in the second communication protocol into the particular application specific communication protocol that is compatible with the destination port and transmitting the message in the particular application specific protocol via the destination port; and

a memory device for storing a) information regarding the application specific protocol and the physical communication protocol used at each of the plurality of communication ports, b) the second communication protocol and c) a mapping between each of the plurality of communication ports and one or more of the destination devices, said mapping allowing the logic device to determine the destination device or the destination port for each message received by the communications multiplexer device.

²18. (Previously Presented) The communication multiplexer device of claim 17, wherein the regulated gaming software on the gaming machine that is used when the communication multiplexer device is in a communication path between the gaming machine and the one or more game service servers is the same as when the communication multiplexer device is not in a communication path between the gaming machine and the one or more game service servers.

³19. (Previously Presented) The communication multiplexer device of claim 17, further comprising:

an EEPROM that provides configuration information to the processor board, said configuration information including one or more of the mapping, the physical communication protocol used at each of the communication ports or the application specific protocol used at each of the communication ports.

²⁰20. (Original) The communication multiplexer device of claim 17, further comprising:

a firewall connected to the output communication port.

²¹21. (Original) The communication multiplexer device of claim 17, further comprising:

a power supply.

²²22. (Original) The communication multiplexer device of claim 17, further comprising:

a network interface board.

²³23. (Original) The communication mutliplexer device of claim 22, wherein the network interface board provides a wireless radio network interface.

²⁴24. (Original) The communication mutliplexer device of claim 22, wherein the network interface board provides a Ethernet network interface.

²⁵25. (Original) The communication mutliplexer device of claim 17, wherein the second communication protocol is a TCP/IP communication protocol.

²⁶26. (Previously Presented) The communication mutliplexer device of claim 17, wherein the application specific protocol is selected from the group consisting of a progressive game service protocol, a bonus game service protocol, a player tracking service protocol, a cashless ticketing service protocol, a game downloading service protocol, a prize service protocol, an entertainment content service protocol, a concierge service protocol, a lottery service protocol and a money transfer service protocol.

²⁷27. (Previously Presented) The communication multiplexer device of claim 17, wherein the physical communication connection is selected from the group consisting of RS-422/485, Fiber Optic, RS-232, DCS Current Loop, Link Progressive Current Loop, IEEE (Institute of Electronic and Electrical Engineers) 1394-compatible, Ethernet and USB (Universal Serial BUS)-compatible.

²⁸28. (Original) The communication mutliplexer device of claim 17, further comprising:

an antenna connected to the output communication port.

¹²29. (Previously Presented) The communication mutliplexer device of claim 17, wherein the plurality of communication ports comprise 8 communication ports.

¹⁴30. (Previously Presented) The communication mutliplexer device of claim 17, wherein the plurality of communication ports comprise 16 communication ports.

31. (Withdrawn) A method of providing communications between master gaming controller on a gaming machine and one or more game service servers in a communication multiplexer device connected to the gaming machine and the one or more game service servers, the method comprising:

- establishing communications with a boot server located outside of the communication multiplexer device;

- initializing one or more of a plurality of communication ports on the communications multiplexer device wherein each of the initialized communication ports is connected to a game service network interface on the gaming machine;

- mapping each of the initialized communication ports to a port game service server;

- configuring each of the one or communication ports to accept a native communication protocol used by the master gaming controller on the gaming machine for communications over the game service network interface with the port game service server wherein the communication multiplexer device is transparent to the master gaming controller allowing the master gaming controller to communicate with a particular game service server without knowing whether the communication multiplexer device is in a communication path between the master gaming controller and the particular game service server;

- establishing a communication connection between each communication port and the port game service server;

- receiving a message from the master gaming controller via a first initialized communication port in the native communication protocol used on the first initialized communication port and

- transmitting the message using a second communication protocol different from the native communication protocol to the port game service server mapped to the first initialized communication port.

32. (Withdrawn) The method of claim 31, wherein the gaming machine employs regulated gaming software that provides messages in the native communication protocol to the one or more communication ports and wherein the regulated gaming software is not modified to accept messages transmitted in the second communication protocol.

33. (Withdrawn) The method of claim 31, wherein the communication multiplexer device is assigned an IP address by the boot server.

34. (Withdrawn) The method of claim 31, further comprising:
converting messages from the gaming machine in the native communication protocol received at one of the initialized communication ports to the second communication protocol;
and
transmitting the messages in the second communication protocol to the port game service server.

35. (Withdrawn) The method of claim 31, further comprising:
converting messages from the port game server addressed to one of the initialized communication ports in the second communication protocol to the native communication protocol of the communication port; and
transmitting the messages in the native communication protocol via the initialized communication port to the master gaming controller on the gaming machine.

36. (Withdrawn) The method of claim 31, further comprising:
receiving a message from the port game service server wherein the message contains a communication port address; and
routing the message from the game service server to the communication port indicated by the communication port address.

37. (Withdrawn) The method of claim 31, further comprising:
receiving a message from the gaming machine at one of the initialized communication ports;
determining an address of the game service server corresponding to the one communication port; and
routing the message from the gaming machine to the address of the game service server.

38. (Withdrawn) The method of claim 31, wherein the native communication protocol is selected from the group consisting of RS-422/485, Fiber Optic, RS-232, DCS Current Loop, Link Progressive Current Loop, IEEE (Institute of Electronic and Electrical Engineers) 1394-compatible, Ethernet and USB (Universal Serial BUS)-compatible.

39. (Withdrawn) The method of claim 31, wherein the second communication protocol is a TCP/IP communication protocol.

40. (Withdrawn) The method of claim 31, wherein the one or more game service servers are selected from the group consisting of a prize server, a game server, an entertainment content server, a cashless ticketing server, progressive game server, a bonus game server, a concierge service server, a lottery server and a money transfer server.

^h41. (Previously Presented) The communication multiplexer device of claim 17, wherein the logic device is adapted for receiving information formatted in a first application specific protocol and translating information to a second application specific protocol.

^u42. (Previously Presented) The communication multiplexer device of claim 41, wherein the first application specific protocol is a first player tracking protocol and the second application specific protocol is a second player tracking protocol.

^x43. (Previously Presented) The communication multiplexer device of claim 17, wherein information stored in the memory device is loaded into the memory device from a boot server.

REMARKS

Claims 17-30 and 41-43 remain in the application. Claim 17-30 and 41-43 are rejected. Claim 17 has been amended. The applicant believes the amendment does not introduce new matter and is at least supported in Fig. 3 and Fig. 5A.

Interview Summary

Applicant and Examiner discussed the Acres reference. Examiner said he will consider modifying the “an output communication port” to be more reflective of only one output communication port being claimed in the claimed invention.

Rejections under 35 U.S.C. § 103

The Examiner rejected claims 17-19, 21-30 and 41-42 are rejected under 35 U.S.C. 103 (a) as being anticipated by Acres et al. (U.S. Patent No. 5, 741, 183). The rejection is respectfully traversed.

All of the instant claims as amended, 17-30 and 41-43 describe a communication multiplexer device with a plurality of communication ports, only one output communication port and a logic device. The communication multiplexer device is connected to a master gaming controller on a gaming machine and one or more game service servers and receives communications from both the one or more game servers and the master gaming controller via the plurality of communication ports and the output communication port. The communication multiplexer device controls communications between the plurality of communication ports and the only one output communication port. Further, the logic device on the communication multiplexer device does not directly communicate with the master gaming controller on the gaming machine.

In contrast, Acres describes a device that directly communicates with the master gaming controller and a network.

The network interface 49 of the data communication node 42 is also coupled to the personality board by a bus 222, as shown in FIG. 2. Bus 222 includes four conductors which connects the four terminals of connector 51 with four corresponding terminals of connector 204, as indicated by the common lettered suffixes. It is over these four lines that the DCN controller 46 indirectly communicates with the floor controller (Col. 18, 1-8).

Thus, Acres teaches communicating using four lines while the present invention teaches “only one output communication port.” For at least these reasons, Acres cannot be said to anticipate or render obvious claims 17-19, 21-30 and 41-43 and the rejection is believed overcome thereby.

The Examiner rejected claims 20 under 35 U.S.C. 103 (a) as being unpatentable over Acres in view of Alcorn et al (U.S. patent No. 6,149, 522). The rejection is respectfully traversed.

The Examiner rejected claims 43 under as being unpatentable over Acres in view of O'Toole (U.S. Patent 6,345, 294).

All of the instant claims as amended, 17-30 and 41-43 describe a communication multiplexer device with a plurality of communication ports, only one output communication port and a logic device. The communication multiplexer device is connected to a master gaming controller on a gaming machine and one or more game service servers and receives communications from both the one or more game servers and the master gaming controller via the plurality of communication ports and the only one output communication port. The communication multiplexer device controls communications between the plurality of communication ports and the only one output communication port. Further, the logic device on the communication multiplexer device does not directly communicate with the master gaming controller on the gaming machine. The structure and function described in the limitations of claims 17-30 and 41-43 are not described in the combination of references or individual references cited by the examiner.

The Examiner relies on Alcorn for methods relating to casino security and O'toole for methods relating to a boot server. Thus, the combinations of Alcorn and Acres or O'toole do not remedy the deficiencies in Acres in regards to only one output communication port and in regards to directly communicating with the master gaming controller. Therefore, for at least these reasons, Acres, Alcorn and O'toole, alone or in combination, can't be said to render obvious claims 17-30 and 41-43 and the rejection of claims 20 and 43 are believed overcome thereby.

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP



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